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a light source, arranged to irradiate a sample portion of the flowing stream of agricultural product as it is being processed with a plurality of wavelengths within a selected irradiation bandwidth within a [short wavelength] near infrared spectrum;

an optical pick up, arranged to receive light energy reflected from the irradiated sample portion;

a wavelength separator, connected to receive light from the optical pick up, and to produce spatially separated light of different wavelengths; and

a detector, connected to receive light from the wavelength separator, and to produce detected intensity signals indicative of light intensity within the wavelength separator bandwidth.

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TN 1614. (Amended) A method for determining a constituent component of a flowing stream of an agricultural product as it is being harvested on a real time basis within mobile agricultural equipment, the method comprising the steps of:

irradiating a sample portion of the flowing stream of agricultural product as it is being processed with a plurality of wavelengths within a selected irradiation bandwidth within a [short wavelength] near infrared spectrum;

picking up light energy reflected from the irradiated sample portion;

separating wavelengths of the picked up reflected light to produce spatially separated light of different wavelengths; and

detecting intensity signals from the separated wavelengths at multiple selected wavelengths to determine multiple light intensities.

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TN 25 30 25. (Amended) An apparatus for determining at least one constituent component of a flowing stream of an agricultural product as it is being harvested on a real time basis, the apparatus comprising:

a light source, arranged to irradiate a sample portion of the flowing stream of agricultural product as it is being harvested with a plurality of wavelengths within a selected irradiation bandwidth within a [short wavelength-] near infrared spectrum;

an optical pick up, arranged to receive light energy reflected from the irradiated sample portion;

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a linear variable filter, connected to receive light from the optical pick up, and to produce spatially separated light of different wavelengths;
an optical fiber, disposed between the optical pick up and the wavelength separator, to couple light energy from the optical pick up to the linear variable filter; and
a charge coupled device detector array connected to receive light from the wavelength separator, and to produce detected intensity signals indicative of light intensity at multiple selected wavelengths within the dispersing filter bandwidth.

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(Amended) A method for determining at least one constituent component of a flowing stream of an agricultural product as it is being harvested on a real time basis, the method comprising the steps of:

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irradiating a sample portion of the flowing stream of agricultural product while it is being harvested with a plurality of wavelengths within a selected irradiation bandwidth within a [short wavelength-]near infrared spectrum;

picking up light energy reflected from the irradiated sample portion;

separating wavelengths of the picked up reflected light to produce spatially separated light of different wavelengths; and

detecting intensity signals from the separated wavelengths simultaneously at multiple selected wavelengths to simultaneously determine light intensity at multiple wavelengths.

REMARKS

Entry of the foregoing amendment is respectfully requested prior to first examination of the application.

The foregoing amendment deletes the words "short wavelength" for certain of the independent claims. It is believed that the restriction to short wavelengths within the infrared spectrum is not necessary to distinguish the invention from the prior art. The claims as they otherwise appear were allowed in the parent application. Therefore, approval of this amendment is respectfully requested.

This continuation application has also been filed to clarify a matter with respect to a petition to revive an unintentionally abandoned application which was submitted in the parent application. No decision has yet been made by the Patent Office on this petition to Applicant's

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